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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,653	11/18/2003	Mack J. Schermer	111453.122 US2	5352

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WILMER CUTLER PICKERING HALE AND DORR LLP  
60 STATE STREET  
BOSTON, MA 02109

EXAMINER

HANDY, DWAYNE K

ART UNIT PAPER NUMBER

1743

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/715,653	SCHERMER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Dwayne K. Handy	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group II, claims 14-21 in the reply filed on 3/13/06 is acknowledged.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 14-21 were previously rejected under 35 U.S.C. 102(e) as being anticipated by Feygin (5,957,167).

Claims 14-16, 18, 20 and 21 were previously rejected under 35 U.S.C. 102(e) as being anticipated by Rose et al. (6,551,557).

**These rejections were made in the previous Office Action (mailed 10/5/05) and remain in effect. Please see Response to Arguments below.**

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4. Claims 14-16, 18, 20 and 21 were previously rejected under 35 U.S.C. 102(e) as being anticipated by Overbeck (6,269,845). **This rejection has been removed.**

**Please see Response to Arguments below.**

### ***Response to Arguments***

5. Applicant has argued the following: The references do not teach or disclose (1) "pins arranged in subsets of two or more pins" or (2) "a plurality of pin lifting mechanisms". The Examiner respectfully disagrees with the first argument as it applies to all references. It is the Examiner's position that any array of pins having more than 4 pins is inherently "arranged in subsets of two or more pins" since the pins in such an array may be grouped into such subsets by the operator (provided there is more than one group having more than one pin). Applicant has not placed any structural limitation on the location of the pins with this particular limitation. For example, a 96 pin array is comprised of pins arranged in two subsets of 48 pins. In addition, the reference Feygin discloses dispensing (using) subsets of an array in column 5, lines 29-41.

6. As to the second argument, Applicant has argued that the references do not teach a plurality of pin lifting mechanisms, each associated with a different one of the subsets, "for lifting the pins of the subset together relative to the printhead". **This argument is persuasive for the "Overbeck" reference, but not persuasive for the "Feygin" and "Rose" references.** The phrase in quotes is an intended use limitation. Therefore, the reference merely needs to contain a plurality of pin lifting mechanisms

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each associated with a different one of the array subsets. Upon a closer inspection, it appears that Overbeck does not teach pin lifting mechanisms. Overbeck instead teaches a biasing spring or magnet that biases the pin laterally. **Therefore, the rejection of claims 14-16, 20 and 21 under Overbeck has been withdrawn.** As for the other references, the Examiner recognizes that Feygin does use downward force of an actuator to expel fluid from the pin. The Examiner presumes that the same actuator mechanism (pneumatic, hydraulic, electrodynamic, see col. 5, lines 5-13) also lifts the pin since the pin must return to the lifted position to dispense. In addition, if the Examiner were to give weight to the limitation of the pins moving relative to the printhead, Feygin discloses this feature in Figure 6 and column 4. The pins (300) move relative to fixed stop member #626. The Rose reference describes pin lifting mechanisms - with pins moving relative to the printhead base - in column 7, lines 3-35.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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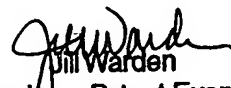
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K. Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DKH  
May 30, 2006

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700